

# **Comprehensive Conservation and Management Plan for the San Juan Bay Estuary**

## **Restoration Plan Database: Crystal Reports of Individual Plan Summaries**

### **I. BASIC PLAN DATA**

#### **Plan name:**

Comprehensive Conservation and Management Plan for the San Juan Bay Estuary

#### **Brief description of plan:**

San Juan Bay has approximately 6.5 miles of coastline and is highly developed. The San Juan Bay (SJBE) system is also defined by small isolated creeks and canals, as well as upland areas that drain into the estuary waters. The drainage basin is relatively small (less than 97 square miles) but it extends above a broad, flat coastal plain and consists of 83 square miles of land and 14 square miles of water. Eleven square miles, or about 12% of the basin, are covered with fill. The basin is almost completely urbanized, comprised of parts of eight municipalities. Land uses and activities in these areas are closely linked to water quality impacts and the degradation of habitat in the estuary. The SJBE system includes San Juan Bay, the Condado Lagoon, the San Jose Lagoon, Los Corozos Lagoon, La Torrecilla Lagoon and the Pinones Lagoon, as well as the interconnecting Martin Pena and San Antonio Channels and the Suarez Canal. Freshwater enters from the numerous creeks and rivers in the watershed and ocean water enters through three openings: Boca Del Morro, El Boqueron at the Condado Lagoon and Boca de Cangrejos.

#### **Region the plan is located within:**

South-Atlantic Region

#### **Watershed(s) included within the plan:**

PR

#### **Area plan covers (in square miles):**

150.00 square miles

#### **Plan scale:**

State

#### **Plan's lead organization(s):**

San Juan Bay Estuary Program

**Plan's Main Contact Information:**

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**On-line version of plan:**

**Date of original plan:**

8/1994

**II. TECHNICAL INFORMATION**

**Plan includes restoration goals:** Y

**Level of detail of the goals:**

G

**Summary of the goals:**

Goals of the SJBE Program; 1.Establish a comprehensive water quality policy. This policy will ensure the integrity of marine resources and terrestrial ecosystems while supporting human activities in the SJBE system. 2.Develop an effective administrative and regulatory framework for the SJBE system that will serve as a model for other estuary systems, especially for tropical systems. 3.Optimize the social, economic and recreational benefits that have been associated with the SJBE system. 4.Prevent further degradation and improve the system's water quality to help ensure healthy terrestrial and aquatic communities and social well-being. 5.Minimize the health risks associated with direct human contact with the surface waters and the consumption of fish and shellfish. Objectives of the SJBE Program; 1.Identify the major stressors impacting the system and establish their relative importance. 2.Develop action plans to remediate the problems identified in the system. 3.Conserve and enhance the integrity of the known, highly valuable natural resources in the SJBE system and restore to the extent possible, those areas that have been adversely impacted. 4.Address the major concerns that citizens and user groups have regarding the quality of the system. 5.Promote the public's awareness regarding estuarine resources and involvement in the development of an effective management plan for the system. 6.Develop a hydrological model of the system to determine effective alternatives to improve circulation and predict hydrological impacts of future development.

**Plan recommends restoration of specific project sites:**

N

**Plan includes a discussion of funding sources:**

Y

**Plan addresses long-term protection of restored sites:**

Y

**Partners included in developing the plan:**

Federal  
State  
Local  
Port Authorities/Commissions  
Business/Industry  
Academia  
Foundations  
Private landowners

**Type(s) of public outreach included during plan development:**

Information not available

**Plan includes public outreach as part of plan implementation (e.g. annual public meeting, local group participation):**

Y

**Plan discusses the application of innovative approaches to restoration:**

N

**Plan make use of GIS mapping capabilities:**

Y

**Plan addresses monitoring/reference sites for ecosystem level monitoring (baseline conditions) by:**

G

**Plan addresses monitoring/reference sites for project level monitoring by:**

G

**The plan discusses or coordinates with other restoration plans covering the same geographic area:**

N

**Other plan names:**

**Plan contains detailed information on historic and/or current habitat size, rate of loss, acres restored or protected, etc.):**

Y

**Summary of this habitat information:**

The estuary has been significantly modified by dredging, channelization, the mining of fill material, the placement of fill material and sedimentation. Human impacts to the estuary's hydrology began in the Condado Lagoon during the 18th century with the construction of a bridge and the San Geronimo and San Antonio forts, and the placement of rocks to block the passage of large ships from the ocean to the lagoon. The first significant change came in the 1820's and 30s with the construction of the Suarez Canal. With the exception of the Pinones Lagoon, which has suffered almost no human alteration to its shape or depth, all of the waterbodies associated with the estuary were greatly altered in the 1950's.